



Credit 2: lecture 1.5 – practice 0.5

EXPECTED LEARNING OUTCOME

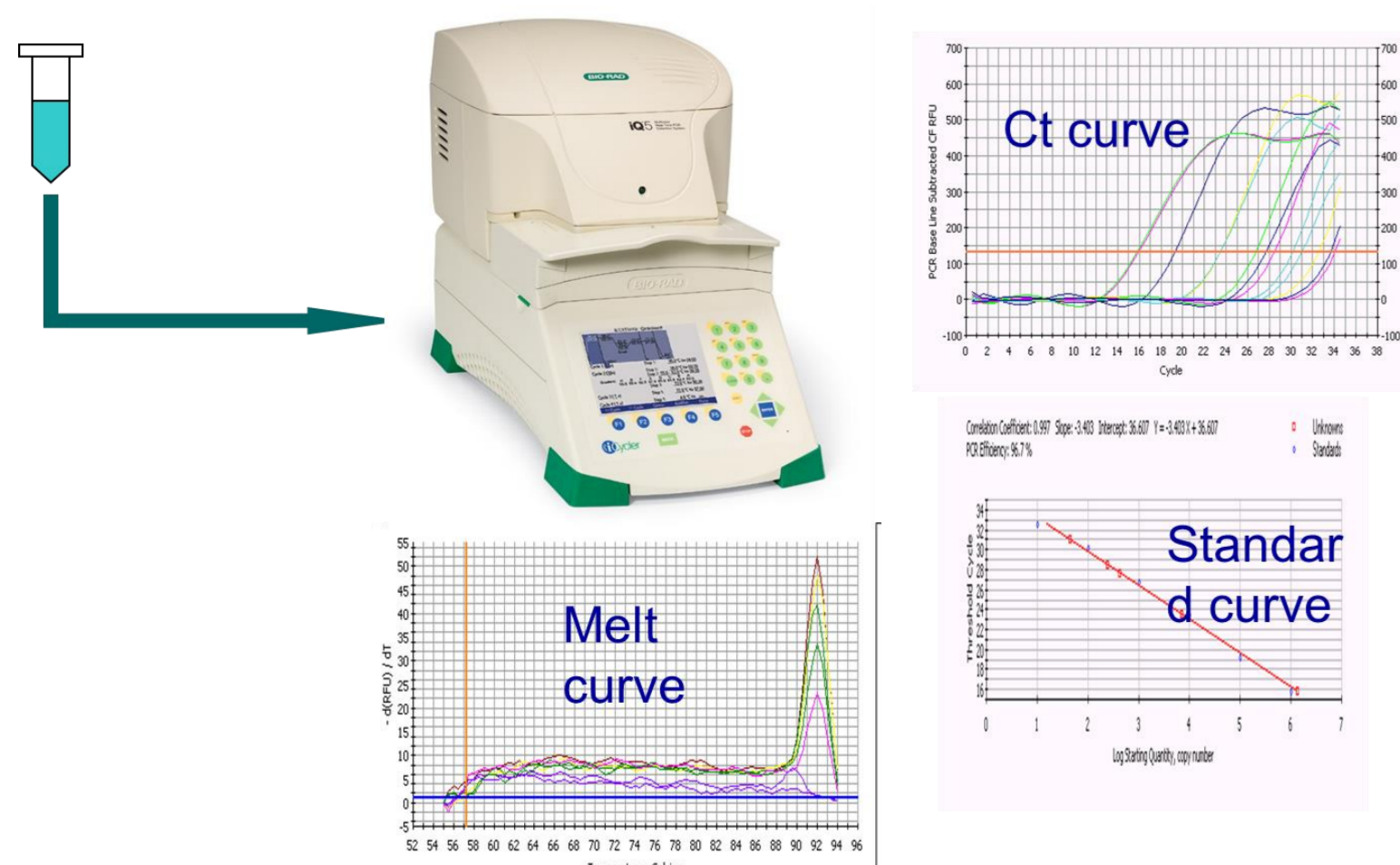
Notation	Course expected learning outcomes After successfully completing this course, students are able to:	Program expected learning outcomes
Knowledge		
K1	Identify objectives of food analysis in assessment of food safety and hygiene	ELO2
K2	Apply molecular biological and immunological techniques in analysis of food microbiology, food toxins, food allergens, and food traceability	ELO2
K3	Apply molecular biological and immunological techniques to quickly inspect and control food hygiene and safety at production facilities and communities	ELO2
Skill		
K4	Use molecular biological and immunological techniques to quickly analyze microbiology, food toxins, food allergens, and food traceability; manage quality assurance system of food production	ELO8
K5	Work in groups to solve problems, write and present reports of groups effectively	ELO6
Attitude		
K6	Demonstrate the ability of life long learning	ELO15

COURSE CONTENTS

Chapter 1: Objectives of food analysis using molecular biological and immunological techniques
 Chapter 2: molecular biological techniques
 Chapter 3: Application of molecular biological techniques in food analysis
 Chapter 4: immunological techniques
 Chapter 5: Application of immunological techniques in food analysis

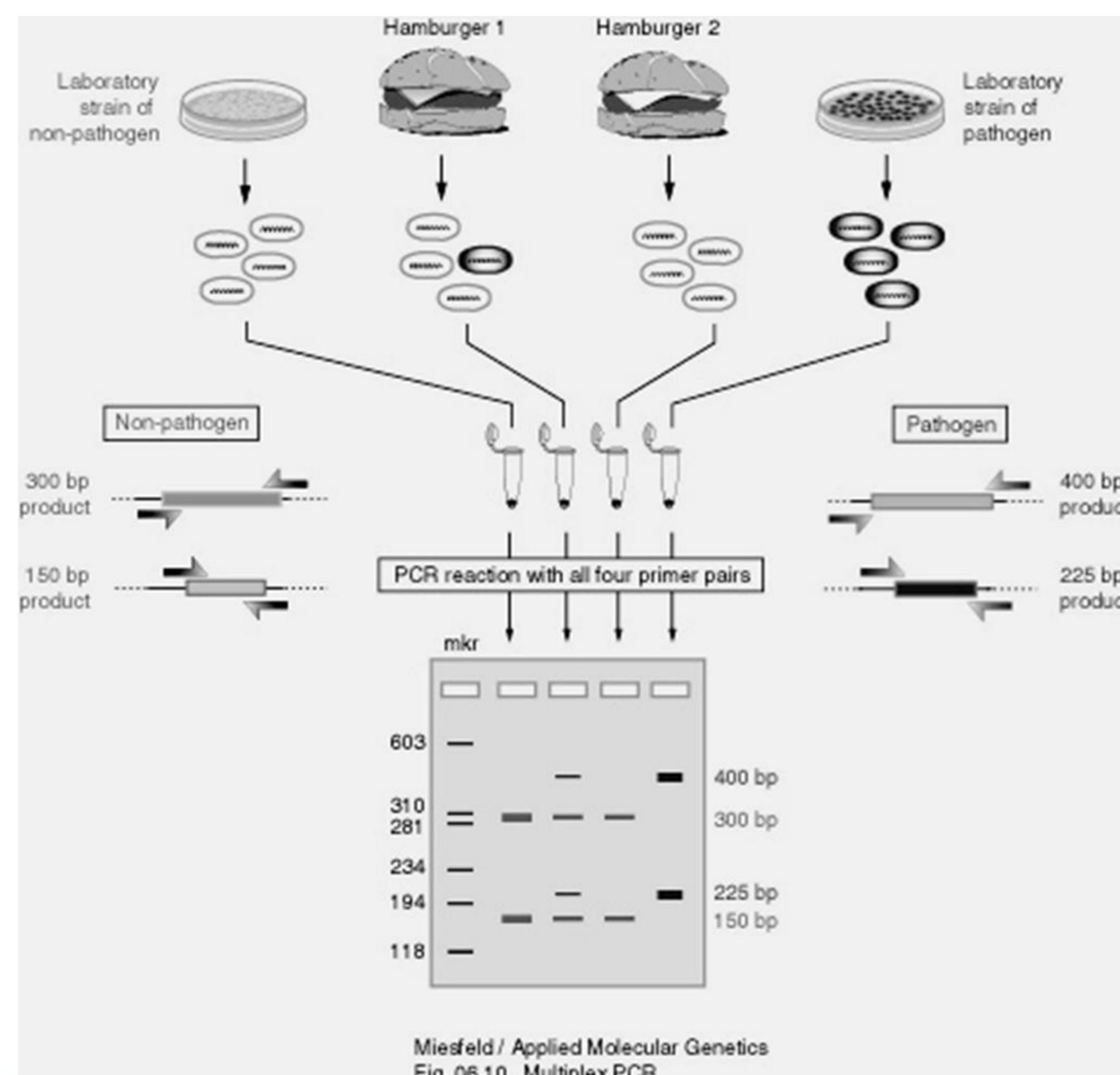
LEARNING METHODS

- Join the learning in class
- Read material at home before class
- Discuss and do group presentations
- E-learning: use online lectures and online discussions with lecturers



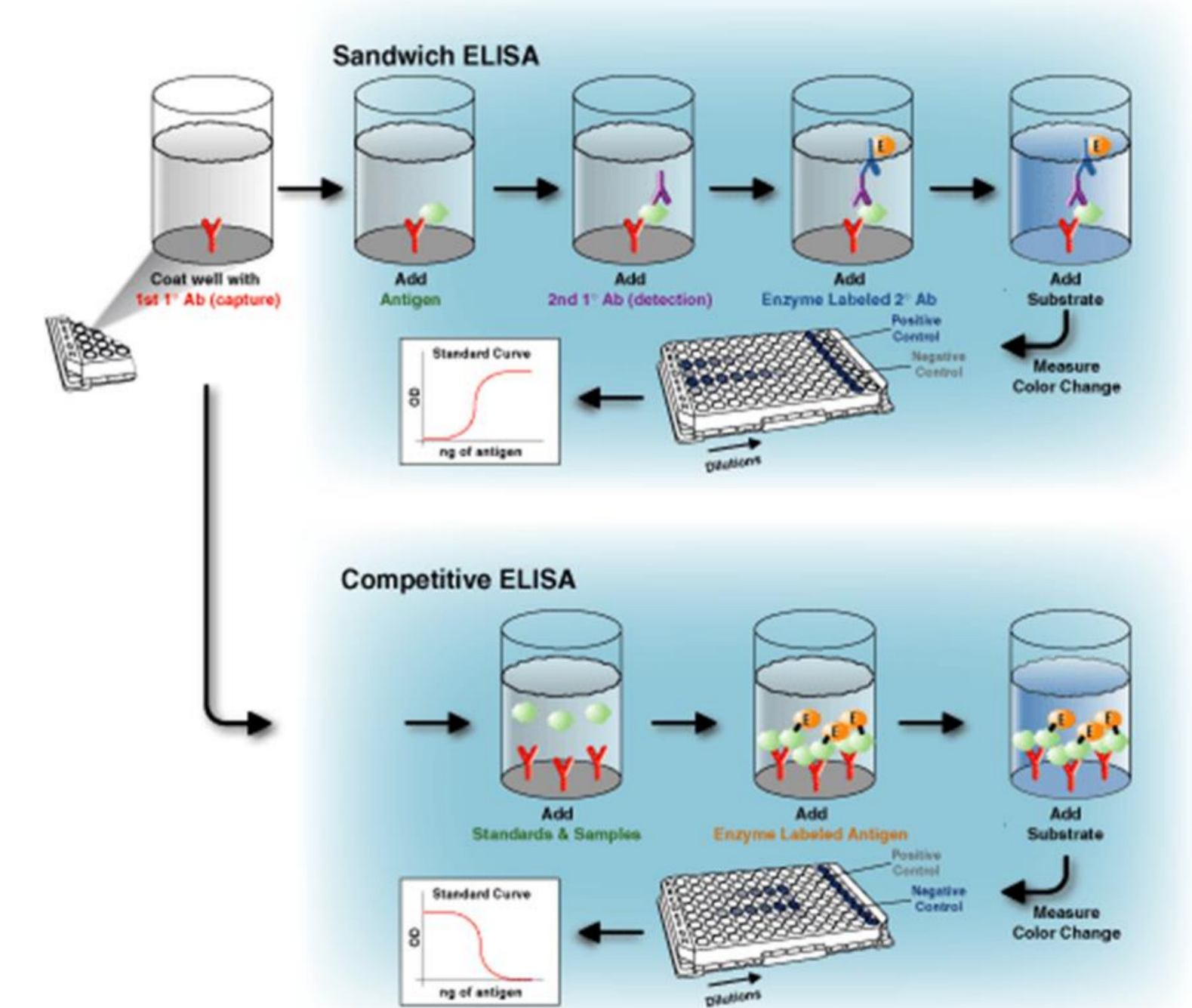
STUDENT TASKS

- Before each lesson, student need to study the previous lesson and read the basic content of the upcoming lesson
- All students participate in making essays, presentations and group discussions, attending all class presentations.
- Final exam: All students who attend this course must take the final exam



ASSESSMENT METHODS

- Grading: 10
- Average score of course is the total points of rubrics multiplied by the respective weight of each rubric



LECTURERS IN CHARGE

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